

REMARKS

Applicants respectfully request re-consideration of the subject application. At the time the Examiner mailed the Office Action, claims 1 and 32-40 are currently pending. In this Amendment, claim 32 has been amended. Claim 40 is withdrawn. No other claims have been added or canceled.

Applicants reserve all rights under the doctrine of equivalents.

Rejections under 35 U.S.C. § 101

Claim 32 stands rejected under 35 U.S.C. § 101 because the disclosed invention is inoperative and therefore lacks utility. Applicants have amended claim 32 to claim “the apparatus is arranged such that substantially nothing except hydrogen is fed to the anode of the fuel cell.” Because this claim, as amended, feeds hydrogen to anode of the fuel cell, the claim is operative. Support for this amendment is found at page 7, lines 1-7 and 30-33. According, applicants respectfully request the withdrawal of the rejection of the claims.

Rejections under 35 U.S.C. § 112, second paragraph

Claim 32 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully submits that claim 32, as amended, complies with 35 U.S.C. § 112, first paragraph, because support for the amended claim 32 is found at page 7, lines 1-7 and 30-33. According, applicants respectfully request the withdrawal of the rejection of the claims.

Rejections under 35 U.S.C. § 103(a)

Claims 1 and 32-39 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,777,119 B2 of Demissie, et al. (Demissie) and U.S. Patent Application No. 2002/0085967 of Yokota (“Yokota”). Applicants reserve the right to swear behind Demissie and Yokota at a later date. Applicants respectfully submit that the combination does not disclose each and every element in claim 1 and 32-39.

Demissie discloses a fuel cell power plant with enhanced water recovery that includes a fuel cell power plant adapted to receive a reducing fluid and an oxidant and to

generate electricity and a partially saturated exhaust stream. Demissie further discloses that the exhaust 26 from the anode outlet of the fuel cell is either recycled back to the anode inlet or is sent to a combustor 32 to burn any remaining fuel, e.g., hydrogen. The exhaust 34 from the combustor, being the only output from the system, is then expelled (Col. 3, lines 50-65, Fig. 1). Therefore, Demissie discloses that the hydrogen is either recycled or combusted.

Furthermore, Demissie discloses a controller 50 that is used to monitor conditions such as ambient air temperatures that is used to control a proton exchange membrane fuel cell (Col. 5, lines 10-24).

Yokota discloses a hydrogen generation apparatus that comprises a vaporizer, reactor, and intermittent injector. The vaporizer heats the reactants and supplies the heated reactants to the reactor. The intermittent injector injects air into the reactor. In the reactor, the reactants react to produce hydrogen gas. The exhaust gas from the reactor is discharged through a flow passage.

Claim 1 reads as follows:

A power generation apparatus comprising:

a fuel cell including an anode;

a reforming module, wherein the reforming module is adapted to reform hydrocarbon fuel into hydrogen and other components, and to separate said hydrogen from said other components, the apparatus being arranged so that said hydrogen is fed from the reforming module to the anode of the fuel cell;

a recycling arrangement to recycle hydrogen in the outflow stream of the anode of the fuel cell back to the anode; and

a controlling arrangement to control the amount of hydrogen recycled and to tap off externally hydrogen that is not recycled.

(Claim 1)(emphasis added).

Applicants submit that the asserted combination of Demissie and Yokota does not disclose each and every element of applicants' claims. In claim 1, applicants claim "a controlling apparatus to control the amount of hydrogen recycled and to tap off externally hydrogen that is recycled." The Examiner equates applicants' controlling apparatus with Demissie's controller (Office Action, p. 4). However, because Demissie's controller is used to monitor conditions, such as ambient temperatures, and not control the amount of hydrogen recycled or externally tapped off, applicants respectfully submits that Demissie's controller cannot be properly equated with applicants' controlling apparatus as claimed.

Furthermore, there is no other section of Demissie that discloses “a controlling apparatus to controlling apparatus to control the amount of hydrogen recycled and to tap off externally hydrogen that is recycled” as claimed in claim 1.

Furthermore, because Demissie discloses that hydrogen is either only recycled or combusted, Demissie does not disclose hydrogen that is tapped off externally. Therefore, Demissie does not disclose “a controlling apparatus ... to tap off externally hydrogen that is recycled” as claimed in claim 1.

Applicants respectfully submit that Yokota does not cure this deficiency. Although Yokota discloses a flow passage for discharging exhaust gas, Yokota’s flow passage is not a controlling apparatus to control recycling part of the exhaust gas and externally tapping off the other part of exhaust gas. Thus, Yokota does not disclose the claimed element.

Therefore, applicants respectfully submit that claims 1 and 32-39 that depend on claim 1 are not rendered obvious by the combination. Accordingly, applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 103(a).

SUMMARY

Applicants respectfully submit that the applicable rejections and objections have been overcome. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned at (408) 720-8300.

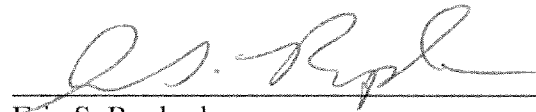
Please charge any shortages and credit any overages to Deposit Account No. 02 2666. Any necessary extension of time for response not already requested is hereby requested. Please charge any corresponding fee to Deposit Account No. 02-2666.

Respectfully submitted,

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LLP

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